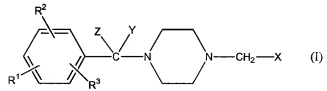
In the Claims

1. (Currently amended) A method for treatment of a mammal threatened or afflicted by Alzheimer's disease, by administering to said mammal an effective amount of a compound of formula I:



wherein:

a) R^1, R^2 and R^3 are individually H, OH, halo, (C_1-C_6)alkyl, (C_1-C_6)alkoxy, (C_3-C_6)cycloalkyl, (C_3-C_6)cycloalkyl((C_1-C_6)alkyl), (C_2-C_6)alkenyl, (C_2-C_6)alkynyl, (C_1-C_6)alkanoyl, halo(C_1-C_6)alkyl, hydroxy(C_1-C_6)alkyl, (C_1-C_6)alkoxycarbonyl, (C_1-C_6)alkylthio, thio(C_1-C_6)alkyl, (C_1-C_6)alkanoyloxy, ~~N(R^6)(R^7)~~ N(R^6)(R^7) wherein R^6 and R^7 are individually H, O, (C_1-C_6) alkyl, (C_3-C_6)cycloalkyl, (C_3-C_6)cycloalkyl(C_1-C_6)alkyl, phenyl or benzyl, or R^6 and R^7, together with the N to which they are attached form a 5- or 6-membered ring, optionally comprising 1-2 S, N(R^6) or nonperoxide O, or R^1 and R^2 together are methylenedioxy;

b) Y and Z together are =O, $-O(CH_2)_mO-$ or $-(CH_2)_m-$ wherein m is 2-4, or Y is H and Z is OR^9 or SR^9, wherein R^9 is H or (C_1-C_4)alkyl;

c) X is (C_1-C_6)alkyl, (C_1-C_6)alkoxy, hydroxyl(C_1-C_6)alkyl (C_3-C_{12})alkenyl, (C_2-C_6)alkynyl, carboxy, (C_1-C_6)alkoxycarbonyl, thio(C_1-C_6) alkyl, (C_3-C_{12})heterocyclo, (C_3-C_{12}) heterocycloalkyl(C_1-C_6) alkyl, aryl or heteroaryl, optionally substituted by 1, 2 or 3 R^1;

and the pharmaceutically acceptable salts thereof.

2. (Original) The method of claim 1 wherein the amount is effective to inhibit Aβ peptide-induced neurotoxicity.

3. (Currently amended) The method of claim 1 ~~claims 1 or 2~~ wherein the amount is effective to inhibit A$\beta_{1\text{-}42}$ neurotoxicity.

4. (Currently amended) The method of claim 1 ~~claims 1-3~~ wherein the amount is effective to inhibit glutamate-induced neurotoxicity in said mammal.

5. (Currently amended) The method of claim 1 ~~claims 1-4~~ wherein the amount is effective to maintain ATP levels in neuronal cells in said mammal.

6. (Original) The method of claim 5 wherein the cells are contacted *in vitro*.

7. (Original) The method of claim 5 wherein the cells are contacted *in vivo*.

8. (Currently amended) The method of claim 1 ~~claims 1-5 or 7~~ wherein the compound of formula I is administered to a human.

9. (Original) The method of claim 8 wherein the human is in an early stage of AD.

10. (Original) The method of claim 8 wherein the human is an AD patient.

11. (Currently amended) The method of claim 1 ~~claims 1-10~~ wherein R^1, R^2 or R^3 is $N(R^6)(R^7)$.

12. (Currently amended) The method of claim 1 ~~claims 1-11~~ wherein R^2 is $(C_1–C_6)$alkoxy.

13. (Currently amended) The method of claim 1 ~~claims 1-12~~ wherein R^3 is $(C_1–C_6)$alkoxy.

14. (Currently amended) The method of claim 1 ~~claims 1-10 or 12-13~~ wherein each of R^1, R^2 and R^3 is $(C_1\text{-}C_3)$alkoxy.

15. (Currently amended) The method of claim 1 ~~claims 1-14~~ wherein Y and Z together are =O.

16. (Currently amended) The method of claim 1 ~~claims 1-14~~ wherein Y is H and Z is OH.

17. (Currently amended) The method of claim 1 ~~claims 1-16~~ wherein X is $(C_1–C_6)$alkyl.

18. (Currently amended) Method of claim 1 ~~claims 1-17~~ wherein X is CH_3.

19. (Currently amended) The method of claim 1 ~~claims 1-5 and 7-18~~ wherein the compound of formula I is administered orally.

20. (Currently amended) The method of claim 1 ~~claims 1-5 and 7-18~~ wherein the compound of formula I is administered parenterally.

21. (Currently amended) The method of claim 1 ~~claims 1-20~~ wherein the compound of formula (I) is administered in combination with a pharmaceutically acceptable carrier.

22. (Original) The method of claim 21 wherein the carrier is a liquid, suspension or gel.

23. (Original) The method of claim 21 wherein the carrier is a solid.

24. (Currently amended) The method of claim 1 ~~claims 1-23~~ wherein the compound of formula I is [(2,3,4-trimethoxy)phenyl]-[4-ethylpiperazin-1-yl] methanone.

25. (Original) A composition comprising a compound of formula (I) in combination with a pharmaceutically-acceptable carrier.

26. (Original) A therapeutic method to treat a neuropathy that involves a glutamate network or pathway hyperactivity comprising administering to a mammal threatened with, or afflicted by, said neuropathy, an effective amount of a compound of formula (I).

27. (Canceled)